

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of treating asthma, comprising:  
~~selecting an airway for treatment, wherein the airway has hypertrophied airway smooth muscle;~~  
irradiating a length of the airway with a light source having a wavelength of about 240 nm to about 280 nm and an intensity which causes a change in the airway such that ~~a thickness of the airway smooth muscle decreases and~~ bronchoconstriction of the airway is reduced.
2. (Previously presented) The method of claim 1, where the change in the airway occurs in smooth muscle cells.
3. (Previously Presented) The method of claim 1, where the change in the airway occurs in mucus gland cells.
4. (Canceled)
5. (Original) The method of claim 1, where the wavelength of the light source is in the red visible range.
6. (Previously Presented) The method of claim 1, where the light source comprises an infrared source, a visible source, or an ultraviolet source.
7. (Original) The method of claim 1, further comprising moving the light source along the airway.

8. (Original) The method of claim 1, where irradiating the length of the airway with the light source prevents bronchospasms.

9. (Previously Presented) The method of claim 1, where the change in the airway comprises preventing airway cells from replicating.

10. (Currently Amended) The method of controlling mucus within a lung, comprising:

selecting an airway for treatment;

irradiating a length of the airway with a light source having a wavelength of about 240 nm to about 280 nm and an intensity which causes a change in the airway mucus gland cells such that mucus secretions of the airway are reduced.

11. (Previously Presented) The method of claim 10, where the change in the airway occurs in mucus gland cells.

12. (Canceled)

13. (Original) The method of claim 10, where the wavelength of the light source is in the red visible range.

14. (Previously Presented) The method of claim 10, where the light source comprises an infrared source, a visible source, or an ultraviolet source.

15. (Original) The method of claim 10, further comprising moving the light source along the airway.